



THE COMMONWEALTH OF MASSACHUSETTS
WATER RESOURCES COMMISSION

Meeting Minutes of October 12, 2000

Commission Members in Attendance:

Peter Webber	Commissioner, Department of Environmental Management
Arleen O'Donnell	Designee, Department of Environmental Protection
Mark P. Smith	Designee, Secretary of Environmental Affairs
Joseph E. Pelczarski	Designee, Coastal Zone Management
Marilyn Contreas	Designee, DHCD
Francis J. Veale	Public Member
Gary Clayton	Public Member
David Rich	Public Member
Richard Butler	Public Member

Others in Attendance:

Martha Stevenson	League of Women Voters
Patrick Rogers	Taunton River Basin Team Leader
Ruth Alfasso	Dept of Public Health, Boston
Leo Potter	Town of Foxborough
Joan Sozio	Town of Foxborough
Linda Marler	DEM OWR
Vicki Gartland	DEM OWR
Michele Drury	DEM OWR
Robert E. Hickman	Earth Tech
Robert P. Bell	Earth Tech
Richard Carroll	Sudbury Water District
Steve Asen	DEM OWR
Lorraine Downey	MWRA
Glenn Haas	DEP
Mike Gildesgame	DEM OWR
Kristen Hall	MWRA
Carl H. Leone	MWRA
Jackie Murphy	EOEA
Tim Stoddard	Boston University

Agenda Item 1: Executive Director's Report

• Smith stated that the Commission is responsible for reviewing proposals for the Army Corps of Engineers (ACOE) through two programs: Planning Assistance to States and the Floodplain Management Program. Only a handful of proposals had been received by the deadline, so we

requested that the ACOE extend the deadline in order to encourage other proposals. Proposals received will be reviewed at the November meeting, with a decision in December. There is still time left to apply, so Smith urged Commission members to encourage communities to submit proposals. He stated that Basin Team leaders were also sent notices to get the word out.

- The Cranberry Memorandum of Understanding (MOU) between DEP and the cranberry growers was discussed at an earlier meeting. The MOU encourages growers to conserve water by allowing a grower to expand bogs if they save water. The MOU needs to get final sign off. The completed MOU will be provided to WRC next month.

- It is time to start thinking about next year's work plan. Discussion will begin at the November meeting so we can put together a draft for the December meeting, to be approved in January. Smith asked that Commission members think about ideas to be included. Many of this year's projects will have follow-up components in next year's plan.

- There was an article in the Boston Globe about keeping water local. It discussed water use and stream flow, and how loss of storm water affects the water cycle. This is a testament to the growing awareness of this issue. Smith had the opportunity to speak to League of Conservation Voters at their annual fall meeting, which was on water issues. The meeting addressed the issues that we are dealing with here.

- Smith announced changes at the DEP: O'Donnell is now a deputy commissioner working with Lauren Liss on policy and planning. Glenn Haas is Acting Assistant Commissioner for the Bureau of Resource Protection. Congratulations to both.

- Marler presented the current condition report.

- ⊙ September rainfall seems to be nearly normal. The statewide average was 94% of normal. There were some variations among regions but all were above 84% of normal.

- ⊙ USGS groundwater and streamflow level maps have been included in reports distributed to WRC this month. Most of state was near or above normal for groundwater and streamflow. Cape Cod continues to have a below normal water table (eastern side of Cape). This condition has been persisting since June of 1999. Flows in selected rivers this month are below medians because there hasn't been much rain in the past few weeks. Flows are still about or above normal in western Massachusetts and the Connecticut River valley, where there's been no shortage of rain.

- ⊙ Cumulative plots of rainfall for each region during the last water year are attached to the back of the report. October 1st started a new water year. Happy New Year. It is a happy new year because all of our regions have received normal or above normal amounts of precipitation throughout the last water year. Things turned out a lot better than we had anticipated with all the Weather Service warnings about drought. The Central region is still receiving the lowest amount of precipitation, but even they ended up with 99% of the normal cumulative precipitation for the water year.

⊙ The fire danger is low to moderate. Although levels have been low, Mike Tirrell of DEM's Bureau of Forest Fire Control says that there have been some fires in southeastern Massachusetts. October is Fire Prevention month.

Water supply reservoir levels are between 76 –94 % of full capacity, which is near or above normal for this time of year.

⊙ Drought Indices and predictions are for normal to above normal rainfall through December 2000. October should have near normal temperatures and above normal precipitation. So far this hasn't happened. We are a little below normal with precipitation now, so we'd have to have some rain towards the end of the month.

⊙ Hurricane season only has a few weeks left. There have been a lot of hurricanes this season, but none that affected the northeast US.

• Rich asked to comment on the New England Water Works Association conference before moving on to Item 2. He stated that Vicki Gartland had given a presentation on drought management. She did "a superb job". Webber thanked Rich for bringing that the Commission's attention. Congratulations to Vicki.

Agenda Item 2: Request for Additional Information from the Town of Foxborough for its Interbasin Transfer Application

Drury acknowledged Joan Sozio and Leo Potter from the town of Foxborough and their consultants. Foxborough's IBT application was submitted on July 27th. The town is proposing to develop two wells near Witch Pond in the Ten Mile River basin. The Town has land area in the Ten Mile River basin, the Neponset River basin and Taunton River basin. The combined capacity of the wells is 1.4 mgd. Water from these wells will be used within the town of Foxborough and discharged as wastewater to the Mansfield regional wastewater treatment plant in the town of Norton, in the Taunton River basin. In June the WRC approved the Mansfield Morrison well IBT request. This is located downstream. Drury reminded the commission that the hydrology of the area was complicated. The surface water divide and the ground water divide are not coincident. There is underflow from Lake Mirimichi in the Taunton River basin into the Ten Mile River basin near Witch Pond. The area where both the Foxborough and Mansfield wells are located is an Atlantic White Cedar Swamp, habitat to two rare and endangered species: the Hessel's Hairstreak butterfly and the spotted turtle. Staff had both Mansfield and Foxborough consider each other's projects in their analyses, so the Commission could evaluate the cumulative impacts of these projects on the downstream ecosystem area of the basin as a whole.

The application was reviewed by DEM's Office of Water Resources, DEP's Office of Watershed Management and Southeast Regional Office, DFWLE's Divisions of Fisheries and Wildlife, and Marine Fisheries, Natural Heritage and Riverways Programs, and the Ten Mile River Basin Team Leader. We are requesting additional information, mainly clarification of the data provided in the application, as well as some site specific information concerning impacts to wetlands immediately adjacent to the wells. We are also asking for documentation of their ground water model. Once we receive all the information needed to evaluate the environmental impacts of this

project, staff will recommend that the WRC find the application to be complete. This will start the 60 day clock to hold public hearings, conduct the analyses and make a staff recommendation on the merits of the project.

Veale asked if the Ten Mile River basin was stressed. Drury deferred to the stress basin committee, which has not completed its work. She stated that from the cumulative impacts analysis that Mansfield completed, it was concluded that water was available. Smith added that based on sheer volume, there was enough water in the basin to meet the needs of both sets of wells, however there are other issues which need to be addressed, such as site specific impacts.

Clayton asked if the differences between the two communities with respect to the modelling had been resolved. Drury replied that Foxborough had been using the Mansfield model with site specific modifications. Clayton then asked if staff was comfortable with the model being used. Gartland replied that this was a bit premature. Some of the information we are requesting is for clarification and documentation of the model runs.

Webber asked for the timeline for the process. Drury stated that once we had a complete application, the Commission had 60 days to hold public hearings, but the hearings need to be noticed in MEPA for a certain period of time before they can be held (i.e. hearings cannot be held the day after the application is accepted as complete). After the public hearings, a staff recommendation on the project will be made to the WRC. After that, the WRC has decided to hold a public hearing on the staff recommendation. This will be held within two weeks of the staff recommendation presentation. If needed, adjustments will be made based on any comments received through this process. The WRC will then have another 60 days from the conclusion of the final public hearing to make a decision to approve or deny the application.

Rogers commented that Foxborough was pursuing a comprehensive wastewater management plan under DEP's SRF program. They are also asking for additional funding for stormwater management. They are also addressing recharge issues.

Sozio stated that the town had an agreement with the Patriots for the reuse of water. The town has committed to pursuing reuse in other areas. The town wants to make sure that if it sewers new areas, it looks at opportunities to reuse water or recharge the town's aquifers. The town has a very aggressive water conservation program. Foxborough brought this land over 30 years ago in order to make sure that there were sources of water to meet future needs. Webber acknowledged that he had heard that Foxborough was innovative and forward looking with regards to water management and conservation. He asked if water reuse meant, after treatment, recharging groundwater or use of gray water systems. Sozio answered that treated wastewater would be used in stadium both to flush toilets and for irrigation. They are also looking at areas where they can recharge aquifers.

Webber asked if there were projections on the stadium's total consumption of water, with the new systems in place. Bell answered 10 million gallons per year. The stadium currently uses 20 million gpy. The projected water savings are 65%, but this won't really be known until the systems are in place. Webber encouraged the town to continue to work closely with staff to provide the information needed to keep the application process moving forward.

Agenda Item 3: Bluestone Energy Interbasin Transfer

Smith reminded the WRC that the EIR for the Bluestone project was approved by the Secretary earlier this summer, moving this project into the regulatory arena. Both Brockton and Bluestone have asked EOEa for clarification concerning the requirements of the MEPA certificate. Specifically they have asked EOEa to define the requirements for the communities and for the company.

It was agreed that DEP would set up a single point of contact for Bluestone to coordinate the numerous permits required for this project, estimated to be about 22. There are still a lot of issues concerning the impact of the intake on the estuary and the discharge of brine. EOEa has also agreed to work with the city of Brockton on the specific requirements they will face. And we have agreed to outline the regulatory requirements other communities would have to meet.

Brockton has agreed on a contract with Bluestone but was not willing to sign until there was clarification about the various permitting requirements. Specifically, there was disagreement over the use of their existing system. The Jones River Watershed Association (JRWA) is concerned about the current use. Brockton needs to know if they will be able to use their existing system as they had in the past. Smith referred to a letter from Secretary Durand to Jack Yunits, Mayor of Brockton, which clarifies Brockton's requirements and responsibilities. This letter was included in this month's Commission package and provides an outline of the various permits required (MEPA Notice of Project Change, WMA, IBT). The letter addresses the concerns of Brockton only. Smith will be working with the agencies to draft a similar letter which will address requirements other communities joining the Bluestone system will need to meet.

In 1996, the WRC decided on the division of responsibilities and requirements between Bluestone and communities. Smith referred to the memo written by Staff in 1996. This was used when drafting the MEPA certificate for this project.

Clayton asked if the discussion today impacted on Brockton's pursuit of the Hanson well. Smith explained that the town of Hanson and the city of Brockton entered into an interim agreement in which the city would pay for development of a well in Hanson. Brockton would get use of the well for 10 years. After that the well would be turned over to Hanson. The well went through the WMA process and was permitted, but it is currently under appeal by JRWA and the Audubon Society. Clayton stated that he asked because he works for Audubon and he did not want to participate if this topic would be discussed. Smith said that this issue was linked with the Bluestone topic, but would not be discussed today. He suggested that they both think more about this as the process moves forward in order to avoid appearances of conflict of interest.

Smith continued that the letter under discussion talks about the rules under which the City will continue to operate its existing system. Brockton has been under an Administrative Consent Order (ACO) with DEP since 1995. This Order set out certain rules, which will still apply. JRWA feels these rules are not protective enough. The ACO has put Brockton on course to finding a long-term solution to their water supply problems. The ACO requires a management plan which will address system management, as new sources are added. This is the place to

address management of the existing system. There are a number of contentious issues regarding registered amount vs. safe yield. Smith was not sure if these issues will come before the Commission. The environmental and legal issues are not completely resolved and may be a source of concern as the project moves forward.

The attachment to the Secretary's letter integrates '96 Staff Memo, Water Management Act issues and requirements under MEPA, as they relate to the City. The '96 memo recommends that because this proposal is for a regional system, the Commission needs to look at the entire system. The Interbasin Transfer Act (ITA) looks at the environmental issues of withdrawing water, as well as system management issues by the water user. In 1996, the Commission decided that Bluestone would be responsible for addressing environmental issues under the ITA. These were addressed somewhat in the EIR, which served as their IBT application. (The Commission recently required additional information on the environmental issues from Bluestone.) Communities will be responsible for meeting the system management criteria.

For the City of Brockton, one of these criteria is development of all viable sources. In 1996 the WRC agreed that they had met this criterion by virtue of unsuccessfully pursuing the Taunton River diversion. Therefore this criterion will not be a hurdle for the City, even though they are still pursuing other local sources. Brockton will still have to meet the '99 ITA Performance Standards for water conservation. Based on knowledge of their system, staff think they will be able to meet the Standards, but the City will need to provide documentation. The City will have to update its watershed protection program and they will have to have or be in the process of developing a Local Water Resources Management Plan. Brockton is purchasing over 1 mgd, so they will be a "significant" interbasin transfer, but this process can be streamlined, as explained at end of memo.

For the Water Management Act, Brockton will need new demand projections. These will need to be approved by the WRC. DEP will need to do a permit modification to add these projections to the current WMA permit. DEP will also use the modification to put in any conditions we may have under the ITA.

MEPA is requiring that anyone who becomes a customer to file a Notice of Project Change (NPC) to the Bluestone EIR. This makes our job easier and provides for a public review and comment process. The NPC will provide one document for all programs and will include the information we need for our process. In addition it requires Bluestone to identify other customers or potential customers. This will help us to look at the project as a whole, not just on a town-by-town basis.

Clayton asked how Staff would develop demand projections for Brockton to account for pent-up demand. Drury responded that when Brockton was looking at Taunton River Diversion, there was a lot of controversy about the DEIR, including the demand projections used. DEM staff and other agencies worked with MEPA and the City to address outstanding issues. We worked to develop new demand projections using the WRC methodology. The City gave us information about census blocks, existing water use, unused areas zoned for business which could potentially be redeveloped, and industrial and commercial types of water use. We developed theoretical demand projections, but they will need to be updated.

Pelczarski stated that his recollection was that the project was originally approved for 5 mgd, with a pilot project to make sure it was environmentally benign. If this was the case, Bluestone would then expand up to 10 mgd. He asked what kind of contracts had been entered into. Smith said that the EIR evaluated the project at 10 mgd, on the theory that they would only come in once for both the EIR and IBT approval. Bluestone has stated that they need 3.5 mgd in contracts to make the project economically viable. The only existing contract (Brockton) is 1.5 mgd. Pelczarski asked for additional clarification. Smith and Drury stated that MEPA and the IBT program required analyses on the 10 mgd potable water plant. DEP's requirements under its pilot program may be for a 5 mgd pilot plant. What is ultimately approved by DEP under the WMA program has not been determined. Bluestone's first phase may be only for a 5 mgd capacity potable water plant, but under IBT, they need to look at the entire planned capacity. So, Pelczarski continued, with contracts of only 1.5 mgd signed so far, they are not even close to 5 mgd. Smith answered that he was not yet aware of any other contracts close to being signed. Pelczarski said that they were supposed to set up a group of environmental agencies that were supposed to evaluate the plant and its operations over a number of years and then decide if they could go on to the 2nd phase.

Smith referred the Commission to the section of the certificate which refers to regional growth issues. He repeated that any other town that joined Bluestone would be responsible for the management of their water supply. Our understanding is that many of the other towns which might join the system would be smaller towns purchasing amounts less than 1 mgd and may not trigger a full IBT review. But they still need to file a NPC. In 1996, the Commission said that the 1 mgd threshold for significance was still in effect, unless communities were planning to abandon sources, or if they currently didn't have a public water supply but were planning on using Bluestone as their sole source. If that is the case, they would need to apply for a full review. The Secretary, in his certificate, also expressed the concern that we don't want communities to lose good water sources in exchange for Bluestone. The certificate holds all communities to our '99 Performance Standards, so all communities must have a good conservation plan. This reflects the Commission's '96 decision which says that all communities, regardless of amount purchased, must submit a conservation plan. Communities are also required by the certificate to address growth management to demonstrate that sprawl will not occur unabated. There is a requirement that this Commission conform to EO 385, which requires that we consider growth impacts as we make decisions. The letter outlining the requirements for the other communities will reflect all of this.

Smith said that communities could come in together with a NPC rather than separately, however, we would not require this because it would hold up a community that had made a decision, if it was forced to wait for other communities to decide to join. We don't often see regional water supplies. This is creating a host of new issues, but it is interesting.

Agenda Item 4: Proposed outdoor lawn watering policies and guidelines

Smith reminded the Commission that this was part of this year's work plan. Murphy reviewed the tasks the Commission had set forth for the task force on this topic. The main point was the need to take action to help water suppliers address peak use issues. The Task Force has heard

from water suppliers that lawn watering is the biggest cause of high peaks. So that's what this group focussed on.

The Task Force identified these objectives:

- To maximize lawn watering conservation
- To increase public awareness of efficient landscaping techniques and the technologies available
- To support water suppliers' efforts to control outdoor water use
- To maintain supplies to provide to for future use and environmental needs
- To provide municipal boards with recommended actions

To address the objectives, a multifaceted approach was developed. Four primary groups were identified as a potential audience:

- Property owners and managers
- Water suppliers
- Municipal Boards
- State agencies

The Task Force identified actions to meet the needs of these four groups. For property owners and managers, a series of recommendations for environmentally sound landscaping techniques are being developed. The Task Force is in the process of developing technical guidance for water suppliers and municipal boards for the development of drought management plans and drafting bylaws to assist communities in managing outdoor water use. For state agencies, the Task Force is working on policy, program and regulatory recommendations.

1. The main emphasis of the Task Force is the need for a more comprehensive approach to public education, statewide. The State needs to elevate the importance of this problem and needs to develop a coherent public education campaign. This is the greatest priority for long term change.

2. The Task Force's second recommendation is to investigate the feasibility for developing a certification program for irrigation system installers. Several other states already have this. New Jersey specifically developed this type of program for water conservation. In order to adopt such a program, we need to determine if legislation is necessary and how the program would be administered and we need to conduct a cost/benefit analysis.

3. The third recommendation is to investigate the feasibility of including conditions for irrigation equipment in the uniform state plumbing code. There are four types of irrigation hardware that might be considered:

(a) Solid state controllers. These are electronic systems which offer greater scheduling versatility than manual controllers. These devices enable property owners to better schedule systems to run in accordance with local water use restrictions. They can also be adjusted for various vegetative types. For example, if areas of a yard need less water, these areas would be watered less.

(b) Matched precipitation heads. These devices proportionally match the amount of water applied to the area being watered by increasing the flow rate of water as the arc of the sprinkler

increases. This type of irrigation fixture can help avoid wet and dry spots and excessive run times.

(c) Pressure regulator sprinkler heads. These improve water dispersal and reduce misting, thereby reducing loss of water through wind.

(d) Rain shut-off devices. These are used to prevent systems from operating during rain events. They are easy to install and relatively inexpensive. Some states require these devices. Municipalities could require them in local bylaws.

Several members of the Task Force raised the issue of “gray” water reuse for large scale developments. The general consensus was that facilitating gray water reuse for these developments would substantially reduce water treatment costs. We would like to see this pursued in terms of data collection, in order to make it easier for a developer to install this technology. Clayton asked if DEP was considering developing a gray water reuse policy. Haas answered that DEP was pursuing a contract with UMASS to do some studies, specifically on viruses as well other related issues. The scope of work should be finalized by end of the calendar year and the study should then be completed within six months. Haas suggested that we do not limit this to “gray” water but also look at treated wastewater reuse. Murphy stated that other technologies were being developed, such as cistern technology. Bellingham is sponsoring pilot project for stormwater conservation and reuse similar to one being considered in Los Angeles that has retrofit single and multiple family homes with cisterns and other conservation technologies to enhance stormwater reuse. This type of technology is up and coming. Smith asked for an explanation of the cistern technology. Murphy replied that the idea was to collect stormwater runoff from gutters and other paved areas in the landscape and funnel it into a cistern equipped to filter out particulates. A pump is connected to the cistern to pump water out for irrigation or other appropriate uses. Smith stated that in California, this also serves as a sort of decentralized flood control project. For us, this could serve to address some of the lawn watering needs.

Murphy continued with the Task Force’s recommendations. The WRC should consider developing a lawn water policy to address the latest technologies and consider including it as an appendix to the water conservation standards.

Data on the impacts of private wells (installed for irrigation purposes) on municipal water supplies should be collected and analyzed. This would only involve wells installed in the Zone II of municipal water supplies. Currently there is not a lot of information on this issue. These wells could potentially benefit water suppliers by dispersing the draw of water or they could exacerbate drought related water shortages because they are unregulated.

The last recommendation is to investigate the feasibility of establishing a seasonal peak withdrawal limit under the Water Management Act. This is especially important in stressed basins where there are clear impacts to surface water from municipal withdrawals.

These recommendations are for discussion and to determine if anything was missed and if the Task Force is on the right track. The Task Force envisions trying to develop an outreach program through the state agencies. Murphy asked for the Commission members’ thoughts. Webber congratulated the Task Force on its hard work. He stated that another role for state

agencies, especially those that are large outdoor water users (including DEM), is to take the lead on some of these recommendations. Webber suggested that these agencies be identified and persuaded to incorporate some of what we will be recommending to municipalities. Murphy stated that if we developed a policy for outdoor water use, it would enable us to go to these agencies to get them to adopt it.

Veale asked about grants or funding to pilot test this in the private sector. Murphy said that DEP has funding for public education, but she was not sure if this falls under the guidelines. Smith stated that this is a good point because the Task Force has stated that the most important thing is to raise the visibility of this issue. This will take money and we need to find sources of funding. Veale stated that a good place to test the various technologies would be at a large industrial park. This would give the issue a lot of visibility. Contreas suggested piloting a program at a well-visited state park and putting this basic landscaping information on the web site. Haas stated that there were certain things DEP allows under the water reuse policy. Right now they are piloting a private company to reuse (wastewater?) for landscaping an office park. DEP is also piloting using treated wastewater for non-contact cooling water.

Rich stated that water suppliers feel that automatic irrigation systems are a great misuse of water. Mashpee Water District does not allow automatic irrigation systems. He asked for clarification of the suggestion that a lawn watering policy be incorporated into the conservation standards. He stated that we need to be careful about moving from a recommended program to a required program and that we should start out educating rather than regulating. Rich is concerned about enforcement of this program, especially if it falls to water suppliers and suggested that the Task Force meet with MWWA. Murphy responded that members of MWWA serve on the Task Force and that they did a presentation to Ray Raposa, Executive Director of the NEWWA.

Smith agreed that we do need proceed cautiously. There are a lot of recommendations that we need to think more carefully about before we decide to implement them, especially those that involve regulation. We need to think about how we are going to administer and enforce any regulatory program we may recommend. Clayton stated that it was important to move towards these recommendations in an informed manner, rather than “cautiously”. We need to find a way to make this work.

O'Donnell asked about the Task Force's membership. Murphy didn't have a list of the members with her, but responded that it was made up of representatives of the water supply community, landscape professionals, UMASS Extension turf specialists, DEP and DEM. O'Donnell asked about the certification program. She said that there was no sense in having a certification program if there are no standards and advised much caution here. Murphy said that certification was for education, primarily. O'Donnell asked if there have been any changes in water use in other states due to certification programs and how can we expand on the policies we already have in place. Butler agreed with O'Donnell regarding certification. Smith stated that right now anyone can install an irrigation system. However he agreed that we need some standards. He was surprised to see that so many states had certification programs. Rich suggested that we come up with criteria for irrigation professionals to use, rather than mandating a statewide certification program. Smith suggested that the plumbing code may be the best place for this.

O'Donnell stated that she was surprised to see the recommendation concerning private wells. As for the peak demand issue, USGS has done work with the Ipswich basin. She suggested that limits on use be related to flow in river rather than a peak number, that way it is resource based. She suggested triggers for voluntary and mandatory conservation based on river flow.

Rich asked about the private well issue. Smith stated that towns are doing various things and we don't know if there is an impact. Rich indicated that private wells are shallow, municipal wells are deep; therefore, he didn't think they would have an impact. If there is a drought condition, these individual private wells will run dry before the public wells. O'Donnell said that this is not a big issue so we should spend our time on other issues. Smith said we need to decide if we should have a position on these wells, but that was not yet clear. Clayton asked for the time frame to submit comments. Murphy said there was no deadline and she would accept any comments.

Richard Carroll, from the Sudbury Water District, asked to comment. He requested that the WRC address this problem from two perspectives: education and regulation. The problem is not in the future, he said, it is now, it is yesterday. The existing problem will not be solved by regulation, but it could be addressed with education. Sudbury has tried education, but got nowhere. The only way the Water District had success with curbing outdoor water use was by implementing higher rates. If WRC could address education now and work with the media and public, they may get message by next summer, but these issues, regulation and education, need to be looked at.

Agenda Item 5: MWRA Inflow and Infiltration Task Force

Smith stated that at a previous meeting, the Commission requested an update on the Infiltration/Inflow (I/I) Task Force that the MWRA has convened. His understanding is that the Task Force is getting close to making recommendations.

Leone distributed some handouts giving the definition of I/I and some background on what has been done in the past with I/I reduction. He cited a number of ACOs between communities and DEP in the mid 80's, requiring that communities work on I/I by removing private sources of inflow (such as sump pumps etc.). DEP also offered a 90% grant program, which many of the MWRA communities took advantage of. In 1987, 1991 and 1993, DEP's I/I guidelines were published and updated. These guidelines formulated a standardized program for communities to address I/I.

When the MWRA came into existence, they inherited requirements for I/I reductions on their projects. (Both MWRA and sewer member communities cooperate on this effort). MWRA's sewer use rules and regulations have specific requirements concerning I/I removal. 100% of the MWRA-owned system (large pipes) are TV inspected. There is follow-up where problems are found. From 1989 to 1990, the MWRA convened a task force to develop the original MWRA policy on I/I. This policy was approved by MWRA's Board of Directors in August 1990. Four main items came out of this policy:

1. Construct a wastewater metering system to develop I/I estimates and consider a flow based rate.
2. The MWRA also looked into implementing a local financial assistance program and signed an interagency agreement with DEP to reduce duplication of effort where both DEP and MWRA were getting involved with I/I issues.
3. In 1993 MWRA started grant/loan program with \$25 mil. Since then there have been two additional budget increases. The program is currently funded at \$100 mil. The MWRA is seeking additional funds in the next budget cycle.
4. In 1995, the MWRA started a new rate methodology which includes two different flow-based components.

In 1996 and 1998, large storm events highlighted regional system problems. There were many overflows and backups into basements that led to discussions between DEP, MWRA, and EPA on how to reduce I/I and target overflows and backups that were creating public health hazards. This discussion continued during the negotiation for MWRA's new NPDES permit. As a result, MWRA organized two workshops to get communities involved and to get feedback. The key element to come out of these workshops was to develop a task force to look at I/I issues to help form a new or updated policy on I/I. The Task Force identified seven specific goals, with different strategies being developed into a report. The final draft is being distributed next week. The first four goals are the top priorities.

1. Protect human health impacts (eliminate backups into people's homes)
2. Minimize or eliminate (in the long term) overflows from systems (manholes etc)
3. Remove inflow sources (stormwater)
4. Minimize ground water infiltration.
5. Public education
6. O& M programs
7. Funding.

The report will contain specific strategies outlining **WHO** is responsible for **WHAT** and **WHEN** things must be done. Under the infiltration goal, one strategy specifies reducing I/I in areas near water resources (wells/rivers/ponds etc). The Task Force is working with local groups to help DPW's identify where these areas are.

The anticipated outcome of the report is to have communities consider the report as a guidance document. Also, MWRA will be using those recommendations specific to its system to revise the 1990 policy by next spring. EPA's Capacity Management and Operation Management (CMOM) program will put significant requirements on cities and towns. Many items in the report are tailored to help cities and towns get a leg up on CMOM requirements.

Smith commented that the Braintree-Weymouth decision included a reference to the work of the Task Force. I/I was a big concern in that decision. Many of the I/I issues are in the communities and jurisdiction is unclear. CMOM could address this.

O'Donnell asked about the jurisdiction issue. Who is responsible for controlling I/I and enforcing the requirements? Leone replied that MWRA is responsible to get the communities to

do more, but it is fuzzy. The report will define roles and responsibilities, but does not designate who is responsible for enforcing. MWRA is responsible for its system and communities are responsible for maintaining their systems. But there is a recognition that funding is limited.

Clayton asked if there will be applications beyond MWRA communities. Leone replied that there are specific strategies recommended to be implemented statewide (especially those on the regional level).

Thibedeau commented that we have struggled with how to measure I/I reduction and asked if the Task Force looked at this. Leone answered that the Task Force looked at it briefly but did not make any progress. Both DEP and EPA representatives indicated that they were not going to tackle that question. The basic measurement for infiltration is cost effectiveness. Inflow is more clear cut because it is illegal. Inflow is the real target for backups and overflows. Infiltration is targeted for low river flow. Thibedeau then asked if I/I reduction is measured by activity, not by volume. Leone answered yes.

Gartland asked if the Task Force was recommending specific methods for reducing I/I. Leone answered that the Task Force was not, but it was recommending that DEP and MWRA conduct annual workshops for technology transfer and to bring those issues out. Technology continues to change, so we don't want to recommend specific methods.

The meeting was adjourned.

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Minutes approved 2/8/01